IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently Amended) A method of ~~controlling a frame rate;~~ video signal processing, the method comprising:

writing source data to a buffer and updating a write pointer;

reading the source data from the buffer at a selected one of a predetermined plurality of reading frequencies and updating a read pointer;

comparing the write pointer and the read pointer; and

~~adjusting a frequency of the reading responsive to the comparing~~

based on a result of said comparing, changing a frequency of the reading to a different one of the predetermined plurality of reading frequencies.

2.   (Original) The method of claim 1 further comprising:

receiving an analog image source signal from an image source; and

generating the source data by converting the image source signal to digital form.

3.   (Original) The method of claim 1 wherein the writing comprises writing the source data to the buffer at an image source frequency.

4.   (Original) The method of claim 3 wherein the reading comprises reading the source data from the buffer at a display frequency.

5.   (Original) The method of claim 4 wherein the adjusting comprises configuring a read control component to read the source data from the buffer at the image source frequency.

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6. (Original) The method of claim 1 wherein the comparing comprises detecting a buffer overflow condition.

7. (Previously Presented) The method of claim 6 wherein the adjusting comprises selecting a frequency of the reading to correct the buffer overflow condition.

8. (Original) The method of claim 1 wherein the comparing comprises detecting a buffer underflow condition.

9. (Previously Presented) The method of claim 8 wherein the adjusting comprises selecting a frequency of the reading to correct the buffer underflow condition.

10. (Original) The method of claim 1 further comprising modifying the source data in accordance with capabilities of a display device.

11. (Original) The method of claim 10 wherein the modifying comprises applying a scaling algorithm.

12. (Currently Amended) A ~~frame rate control~~ video signal processing system comprising:

a buffer;

a write control component configured to write data frames to the buffer according to a write pointer;

a read control component configured to read the data frames from the buffer at a selected one of a predetermined plurality of reading ~~frequency~~ frequencies and according to a read pointer; and

a frequency controller configured to determine a relation between a value of the write pointer and a value of the read pointer and to ~~indicate~~ change the reading frequency to a

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different one of the predetermined plurality of reading frequencies based on the determined relation.

13.   (Original) The system of claim 12 further comprising:

a scaler operative to modify the data frames in accordance with capabilities of a display device.

14.   (Previously Presented) The system of claim 12 wherein the reading frequency is equal to the source signal frequency.

15.   (Previously Presented) The system of claim 12, wherein the frequency controller includes:

a detector configured to detect a buffer overflow condition or a buffer underflow condition based upon the determined relation.

16.   (Original) The system of claim 15 wherein the detector is further operative to output a first signal responsive to the buffer overflow condition and to output a second signal responsive to the buffer underflow condition.

17.   (Currently Amended) The system of claim 16 wherein the frequency controller is configured to ~~indicate~~ change the reading frequency in accordance with one of the first signal and the second signal.

18.   (Previously Presented) The system of claim 12, wherein the frequency controller includes a frequency control element configured to control the read control component to read the data frames at the reading frequency.

19.   (Previously Presented) The system of claim 18 wherein the frequency control element comprises a phase locked loop.

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20.   (Previously Presented) The system of claim 18 wherein the frequency control element is configured to respond to both a buffer overflow condition and a buffer underflow condition.

21.   (Currently Amended) A method of ~~controlling a frame rate of~~ providing a display signal for a destination video display device; the method comprising:

receiving an image source signal comprising source data;

writing the source data to a buffer at a source frequency and updating a write pointer;

reading the source data from the buffer at a display frequency selected from a predetermined plurality of display frequencies and updating a read pointer;

comparing information related to the write pointer and information related to the read pointer;

responsive to the comparing, detecting one of a buffer overflow condition and a buffer underflow condition;

modifying the source data in accordance with capabilities of the destination video display device; and

responsive to the detecting, ~~adjusting~~ changing the display frequency to a different one of the predetermined plurality of display frequencies in accordance with the detected condition.

22.   (Original) The method of claim 21 wherein the image source signal is analog, and further comprising generating the source data by converting the image source signal to digital form.

23.   (Original) The method of claim 21 wherein the adjusting comprises configuring a read control component to read the source data from the buffer at a selected one of a plurality of display frequencies supported by the destination video display device.

24.   (Previously Presented) The method of claim 23 wherein the adjusting comprises identifying one of the plurality of display frequencies to correct the detected condition.

25.   (Original) The method of claim 21 wherein the modifying comprises applying a scaling algorithm.

26.   (Currently Amended) The method of claim 25 wherein the ~~adjusting~~ changing is a function of the detecting and the modifying.

27.   (Currently Amended) The method of claim 21 wherein the ~~adjusting~~ changing comprises utilizing a phase locked loop.

28.   (Original) The method of claim 21 wherein the destination display device is a liquid crystal display.

29.   (Currently Amended) The method of claim 24 wherein the ~~adjusting~~ changing comprises increasing the display frequency responsive to a buffer overflow condition and decreasing the display frequency responsive to a buffer underflow condition.

30.   (Currently Amended) The method of claim 26 wherein the ~~adjusting~~ changing comprises increasing the display frequency when the modifying comprises adding data to the source data and decreasing the display frequency when the modifying comprises deleting data from the source data.

31.   (Currently Amended) A ~~frame rate~~ control system configured to provide display signals to a video display device; the system comprising:

a source signal interface configured to receive an image source signal;

a buffer;

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a write control component configured to write data frames of the image source signal to the buffer according to a write pointer; and

a read control component configured to read the data frames from the buffer at a reading frequency <u>selected from a predetermined plurality of display frequencies</u> and according to a read pointer; and

a frequency controller configured to determine a relation between a value of the write pointer and a value of the read pointer and to ~~indicate~~ <u>change</u> the reading frequency <u>to a different one of the predetermined plurality of reading frequencies</u> based on the determined relation.

32.   (Original) The system of claim 31 further comprising:

a scaler operative to modify the data frames in accordance with capabilities of the video display device.

33.   (Previously Presented) The system of claim 31 wherein the reading frequency is equal to a frequency of the image source signal.

34.   (Previously Presented) The system of claim 31, wherein the frequency controller includes a frequency control element configured to control the read control component to read the data frames at the reading frequency.

35.   (Previously Presented) The system of claim 34 wherein the frequency control element comprises a phase locked loop.

36.   (Previously Presented) The system of claim 31, wherein the frequency controller includes:

a detector configured to detect a buffer overflow condition or a buffer underflow condition based upon the determined relation.

37.   (Previously Presented) The system of claim 36, wherein the frequency controller includes a frequency control element configured to control the read control component to read the data frames at the reading frequency, and

wherein the frequency control element is responsive to signals received from the detector representative of the buffer overflow condition or the buffer underflow condition.

38.   (Currently Amended) A computer readable medium encoded with data and computer executable instructions for ~~controlling a frame rate of~~ providing display signals for a display device, the data and instructions causing an apparatus executing the instructions to:

write video frame source data to a buffer at a source frequency and update a write pointer;

read the source data from the buffer at a display frequency selected from a predetermined plurality of display frequencies and update a read pointer;

compare the write pointer to the read pointer; and

responsive to a comparison of the write pointer and the read pointer, ~~adjust~~ change the display frequency to a different one of the predetermined plurality of display frequencies.

39.   (Previously Presented) The computer readable medium of claim 38 further encoded with data and computer executable instructions causing an apparatus executing the instructions to:

receive an analog image source signal from a source;

convert the analog image source signal to a digital source signal; and

generate the video frame source data from the digital source signal.

40.   (Previously Presented) The computer readable medium of claim 38 further encoded with data and computer executable instructions causing an apparatus executing the instructions to:

configure a read control component to operate at a selected one of a plurality of display frequencies supported by the display device.

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41.   (Previously Presented) The computer readable medium of claim 38 further encoded with data and computer executable instructions causing an apparatus executing the instructions to:

apply a scaling algorithm operative to modify the source data in accordance with capabilities of the display device.

42.   (Previously Presented) The computer readable medium of claim 38 further encoded with data and computer executable instructions causing an apparatus executing the instructions to:

increase the display frequency responsive to a buffer overflow condition; and

decrease the display frequency responsive to a buffer underflow condition.

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43.   (Previously Presented) The computer readable medium of claim 41 further encoded with data and computer executable instructions causing an apparatus executing the instructions to:

increase the display frequency when the scaling algorithm adds data to the source data; and

decrease the display frequency when the scaling algorithm deletes data from the source data.

44.   (Currently Amended) A method of video signal processing, said method comprising:

writing video data to a buffer;

reading a portion of the video data from the buffer; and

transferring a display signal based on the portion of the video data to a display device,

wherein a frequency of the display signal is selected from a predetermined plurality of display frequencies based on an amount of the video data that has not yet been read from the buffer.

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45.   (Previously Presented) The method of video signal processing according to claim 44, said method comprising detecting one of an overflow and an underflow condition of the buffer.

46.   (Previously Presented) The method of video signal processing according to claim 44, wherein the display signal is based on a scaled version of the read video data.

47.   (Previously Presented) The method of video signal processing according to claim 44, wherein the frequency of the display signal is indicated by a phase-locked loop.

48.   (Currently Amended) The method of video signal processing according to claim 47, wherein the frequency of the display signal is selected from among a ~~range~~ plurality of supported refresh rates.

49.   (Currently Amended) The method of ~~controlling a frame rate~~ video signal processing according to claim 47, said method further comprising scaling at least a portion of the video data to correspond to a predetermined pixel array size.

50.   (Currently Amended) The method of ~~controlling a frame rate~~ video signal processing according to claim 1, wherein ~~adjusting~~ said changing a frequency of the reading includes selecting a frequency of the reading from among a ~~range~~ plurality of supported refresh rates.

51.   (Currently Amended) The method of ~~controlling a frame rate~~ video signal processing according to claim 1, said method further comprising scaling at least a portion of the source data to correspond to a predetermined pixel array size.

52.   (Currently Amended) The ~~frame rate control~~ <u>video signal processing</u> system according to claim 12, wherein the frequency controller is further configured to select the reading frequency from among a ~~range~~ <u>plurality</u> of supported refresh rates.

53.   (Currently Amended) The ~~frame rate control~~ <u>video signal processing</u> system according to claim 12, wherein at least one among the write control component and the read control component is further configured to scale <u>at least a portion of</u> the data frames to correspond to a predetermined pixel array size.

54.   (Currently Amended) The method of ~~controlling a frame rate~~ <u>providing a display signal</u> according to claim 21, wherein ~~adjusting~~ <u>changing</u> the display frequency includes selecting the display frequency from among a ~~range~~ <u>plurality</u> of supported refresh rates.

55.   (Currently Amended) The method of ~~controlling a frame rate~~ <u>providing a display signal</u> according to claim 21, wherein modifying the source data includes scaling <u>at least a portion of</u> the source data to correspond to a predetermined pixel array size.

56.   (Currently Amended) The computer readable medium according to claim 38, wherein causing an apparatus executing the instructions to ~~adjust~~ <u>change</u> the display frequency includes causing the apparatus to select the display frequency from among a ~~range~~ <u>plurality</u> of supported refresh rates.

57.   (Currently Amended) The computer readable medium according to claim 38, said medium further comprising data and computer executable instructions causing an apparatus executing the instructions to scale <u>at least a portion of</u> the source data to correspond to a predetermined pixel array size.

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